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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,845

02/18/2004

Jan K. Schiffmann

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EXAMINER

MANCHO, RONNIE M

ART UNIT

PAPER NUMBER

3663

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,845

Applicant(s)

SCHIFFMANN ET AL.

Examiner

Ronnie Mancho

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 14-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-13 in the reply filed on 2/27/06 is acknowledged.
2. Claims 14-22 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/27/06.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Janky et al (6067031).

Regarding claim 1, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose a collision detection system comprising:

a first sensor 81 for sensing an object (V3, fig. 3) in a field of view and measuring a first range (col. 9, lines 26-67) defined as the distance between the object and the first sensor (see fig. 3);

a second sensor 83 for sensing the object in the field of view and measuring a second range defined by the distance between the object and the second sensor (col. 9, lines 26-67; and

Art Unit: 3663

a controller (13, col. 3, lines 6-60) for processing the first and second range measurements, said controller further estimating a crossing location (delta y, fig. 3; col. 9, lines 52-64) of the object as a function of the first and second range measurements.

Regarding claim 2, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the crossing location is estimated relative to a location midway between the first and second sensors.

Regarding claim 3, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the first sensor further determines a first range rate and the second sensor further determines a second range rate (fig. 3), wherein the controller estimates the crossing location of the object further as a function of the first and second range rate measurements (see col. 9, lines 26-65).

Regarding claim 1, Janky et al (figs. 3-6, col. 9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 3, wherein the controller computes a mathematical square of the range and computes a mathematical square of the product of range and range rate for each of the plurality of measurements for each of the first and second sensors, said controller further generating a first curve based on the computations of the plurality of measurements sensed by the first sensor and a second curve based on the computations of the plurality of measurements sensed by the second sensor, said controller estimating the crossing location of the object as a function of the first and second curves.

Regarding claim 5, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 4, wherein the crossing location of the object is estimated as a function of the distance between the first and second curves.

Art Unit: 3663

Regarding claim 6, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 5, wherein the crossing location relative to a location midway between the first and second sensors is estimated by dividing the distance by twice the separation distance of the first and second sensors.

Regarding claim 7, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the controller computes a mathematical square of range estimates for each of the first and second sensors, computes a difference of the squares, and estimates the crossing location as a function of the computed difference of the squares.

Regarding claim 8, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the controller further divides the difference of the squares by twice the separation distance between the first and second sensors to estimate the crossing location relative to a location midway between the first and second sensors.

Regarding claim 9, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 7, wherein the controller comprises a tracking filter.

Regarding claim 10, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the collision detection system is employed on a vehicle and estimates the crossing location of an object relative to the vehicle.

Regarding claim 11, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the controller further generates a collision output signal as a function of the estimated crossing location of the object.

Regarding claim 12, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the first and second sensors each comprises a radar sensor.

Regarding claim 13, Janky et al (figs. 3-6, col.9, lines 26-67; col. 10, lines 1-65) disclose the collision detection system as defined in claim 1, wherein the controller estimates the crossing location of the object absent an azimuth angle measurement of the object.

5. The statements of intended use or field of use found in claims 1-13 such as, "estimating a crossing location as a function of.....", "estimated relative to as location midway...", "determines first range rate....", "computes a mathematical square", "generating a first curve based on....", "computations of a plurality of measurements", "estimated by dividing", "computes a difference", "divides the difference", etc clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647 Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Communication

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 571-272-6984. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronnie Mancho
Examiner
Art Unit 3663

3/19/06


JACK KEITH
SUPERVISORY PATENT EXAMINER